



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,823	07/07/2004	Yoshimasa Matsuura	8062-1022	8503
466	7590	03/17/2006	EXAMINER	
YOUNG & THOMPSON			GOFMAN, ANNA	
745 SOUTH 23RD STREET				
2ND FLOOR				
ARLINGTON, VA 22202			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/500,823	MATSUURA ET AL.
	Examiner	Art Unit
	Anna Gofman	1771

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 July 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-9 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/07/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation, "the length L_{BC} of the boundary line between the composite material layer B and the porous layer C is in the range of 1.2 mm to 2.5 mm." Claim 2 recites the limitation, "the length L_{DC} of the boundary line between the composite material layer D and the porous layer C are in the range of 1.2 mm to 2.5 mm." These limitations are unclear since the structure of said boundary lines is indefinite. Further, the spatial orientation of said boundary lines is unclear. Thus, claim 1-9 are rejected.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (US 2002/0148764).

Lynn et al. teach a blood collection system including an integral flexible filter

(Abstract). The filter includes first and second flexible sheets comprising a meltable material and a depth filter medium comprising a meltable material (pg.1 par.0006). The first and second sheets are made of medical grade plastic material, such as polyvinyl chloride. The filtration medium is made from a fibrous material, which is sandwiched between the two PVC containing sheets. The filtration medium can be arranged in a single layer or in a multiple stack. The medium can include meltblown or spun bonded synthetic fibers such as polyester. Meltblowing and spun bonding are known in the art as methods of producing non-woven fabrics. Thus, the fibrous material of Lynn et al. is non-woven. The filtration medium is a porous material, sized to remove leukocytes (pg.2 par.0033-0034 and Figure 2). According to the invention, a unitary peripheral seal is formed by the application of pressure and heating in single process to join the filtration medium and the PVC containing sheets to each other (pg.2 par.0036). Since the PVC containing sheets are a meltable and flexible material it is inherent that the inner fibrous porous layer also comprises the non-porous plastic PVC material. Further, according to Figure 2, there are five layers illustrated: the upper comprises the PVC, the middle fibrous inherently will comprise the polyester porous material as well as the PVC plastic. The second inner layer is inherently a porous material containing the polyester, alone. The third inner layer of the filtration medium is also inherently the polyester porous material comprising the PVC from the outer layer. Thus, Lynn et al. meet the limitations of claims 1 and 2. It is also inherent that the non-porous material, or PVC, has a lower melting point than the porous polyester material. Thus, Lynn et al. meet the limitation of claim 5. Although Lynn et al. do not explicitly teach the claimed length of boundary line

between the inner layer comprising the porous and non-porous material and the porous layer alone it is reasonable to presume that length is inherently between 1.2 mm to 2.5 mm, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired length through the process of routine experimentation in order to arrive at values which offered the optimum thickness in the invention of Lynn et al. Further, although Lynn et al. do not explicitly teach the claimed dielectric loss, it is reasonable to presume that said dielectric loss is inherently larger in the non-porous material than that in the porous material. Support for said presumption is found in the use of like materials (porous polyester and non-porous PVC), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. In addition, the presently claimed property would obviously have been present once the claimed product is provided.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (US 2004/0251195).

Oka et al. teach a blood filter comprising a first filter element, a second filter

element, and a third filter element arranged between the first and second filter materials. The flexible first and second elements are made of soft polyvinyl chloride (pg.4 par.0038). The third filter element can have several sheets of nonwoven fabric. (pg.4 par. 0041). The filter media (third filter element) can be a porous nonwoven fabric of polyester (pg.5 par.0048). The welding type composite layer filter can have three layers or five layers (pg.6 par.0057). The soft PVC would melt into the porous fibrous polyester, thus making an inner layer comprising porous and non-porous materials. Further, according to Figure 1, there are five layers illustrated: the upper comprises the PVC, the middle fibrous inherently will comprise the polyester porous material as well as the PVC plastic. The second inner layer is a porous material containing the polyester, alone. The third inner layer of the filtration medium is also the polyester porous material, inherently comprising the PVC from the outer layer. Thus, Oka et al. meet the limitations of claims 1 and 2. It is also inherent that the non-porous material, or PVC, has a lower melting point than the porous polyester material. Thus, Oka et al. meet the limitation of claim 5. Although Oka et al. do not explicitly teach the claimed length of boundary line between the inner layer comprising the porous and non-porous material and the porous layer alone it is reasonable to presume that length is inherently between 1.2 mm to 2.5 mm, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired length through the process of routine experimentation in order to arrive at values which offered the optimum thickness in the invention of Oka et al. Further, although Oka et al. do not explicitly teach the claimed dielectric loss, it is reasonable to presume that said dielectric loss is inherently larger in

the non-porous material than that in the porous material. Support for said presumption is found in the use of like materials (porous polyester and non-porous soft PVC), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. In addition, the presently claimed property would obviously have been present once the claimed product is provided.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition to the references provided by Applicant, the following documents are considered pertinent to Applicant's invention:

JP 05-272045 teach a nonwoven fabric composite but do not teach polyester and polyvinyl chloride.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Gofman whose telephone number is (571) 272-7419. The examiner can normally be reached on Mon.-Fri. 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Gofman
Examiner
Art Unit 1771

AG

Elizabeth M. Cole
ELIZABETH M. COLE
PRIMARY EXAMINER
ART UNIT 1771
PAIR SYSTEM COORDINATOR